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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/858,398	05/16/2001	Xiqiang Yang	80867CPK	5321

7590 04/10/2002

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EXAMINER

CHEA, THORL

ART UNIT	PAPER NUMBER
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1752

DATE MAILED: 04/10/2002

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application N .

09/858,398

Examiner

Thorl Chea

Applicant(s)

YANG ET AL

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☒ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-44 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-44 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: .

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 2, 8, 14-17, 29, 30, 31, 40 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1, line 8 "the term "ring" is unclear whether it is referred to a "phenolic ring" of the thermal solvent compound or otherwise; line 9, the parenthesis associated with "(acyl)" should be removed.

Claim 2, page 117, the term "ring" is unclear whether it is referred to a "phenolic ring" of the thermal solvent compound or otherwise.

Claim 8 is unclear for lacking of antecedent basis for the term "melt former".

Claims 14-15 containing the term "consisting of". Both claims requires the term "and" before the last claimed compound.

In claim 16, the use of the term "preferably" on page 122 line 20; page 123, lines 5-6 renders the claim unclear whether the non-preferred range is included; in line 19 the language "at least one C1 to C10 organic group" is indefinite; in line 25, the term "the heteroaromatic" is indefinite; in line 13, there is no antecedent basis for the term "the blocking group"; the term "such as" associated with "phenyl and naphthyl" or "including" in line 7 render scope of protection sought for cycloalkyl and aryl unclear.

Claim 17, the term "D_p" is not defined; therefore, it is indefinite.

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Claim 29, the Roman numeral I should place between parentheses.

Claim 30, the term "ring" is unclear whether it is referred to a "phenolic ring" of the thermal solvent compound or otherwise.

Claim 31, the term "D_p" is not defined; therefore, it is indefinite.

Claim 40 is unclear as to which image to be used in printing; the scope of protection sought for processing steps since the printing technologies recited therein fails to clearly define means to perform the claimed process.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-15, 17, 23-35, 41-44 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sato et al (Sato) in view of Bailey et al ('109) and Hansch et al (Hansch).

Sato discloses a color photothermographic material substantially as claimed. Note to especially to the developing agent of compound (Z) in the abstract. This developing agent is considered as a blocked developer in the meaning of the present claimed invention since this developer reveals development activity by eliminating a protective group from the precursor during heat development (column 13, lines 55-65). In column 21 at lines 48-63, it is disclosed the use of hydrophilic thermal solvent amides, imides and alcohol to accelerate the transfer of dyes. Bailey et al discloses a thermal solvent

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useful in heat developable material. This thermal solvent improve dye transfer efficiency which enable photographic element to be constructed using less incorporated chemistry and therefore lower manufacturing cost. See especially compound in the column 4 formula (I) and its advantage in column 4 lines 40-45. The compound of formula (I) contains Z1 to Z5 as substituents wherein the sum of Hammet sigma parameter is of at least -0.28 and less than 1.53 . The substituents having sigma value within the teaching of Bailey has been known in Hansch.

Sato et al fails to disclose the thermal solvent having specific structure presented in the present claimed invention which has been however known in Bailey. It would have been obvious to the worker of ordinary skill in the art at the time the invention was made to use a thermal solvent taught in Bailey in the material of Sato to its improve dye transfer efficiency which enable photographic element to be constructed using less incorporated chemistry and therefore lower manufacturing cost.

5. Claims 1-44 are rejected under 35 U.S.C. 103(a) as being unpatentable over EP1113316 (EP'316) in view of Bailey et al ('109) and Hansch.

EP'316 discloses a color photothermographic material and process substantially as claimed, except the use of thermal solvent having chemical structure presented in the claimed invention. Note for instance the material on pages 52-55, example 7; the process shown in Figs 1-2, and developers on pages 12-21. Bailey et al discloses a thermal solvent useful in heat developable material. This thermal solvent improve dye transfer efficiency which enable photographic element to be constructed using less incorporated chemistry and therefore lower manufacturing cost. See especially

compound in the column 4 formula (I) and its advantage in column 4 lines 40-45. The compound of formula (I) contains Z1 to Z5 as substituents wherein the sum of Hammett sigma parameter is of at least -0.28 and less than 1.53 . The substituents having sigma value within the teaching of Bailey has been known in Hansch. It would have been obvious to the worker of ordinary skill in the art at the time the invention was made to use a thermal solvent taught in Bailey in the material of EP'316 to improve dye transfer efficiency which enable photographic element to be constructed using less incorporated chemistry and therefore lower manufacturing cost.

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thorl Chea whose telephone number is (703)308-3498. The examiner can normally be reached on M-F (9:30 - 6:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Janet C Baxter can be reached on (703)308-2303. The fax phone numbers for the organization where this application or proceeding is assigned are (703)872-9301 for regular communications and (703)872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)308-0661.

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tchea *TC*
April 5, 2002

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Thorl Chea
Primary Examiner
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